DOCUMENT RESUME

ED 097 084 JC 740 407

AUTHOR	Gladen, Frank H.; And Others
TITLE	A Feasibility Study of California Community Colleges as Agents for Equipment Fire Prevention Education, 1973-1974.
INSTITUTION	California State Dept. of Conservation, Sacramento. Div. of Forestry.; California State Univ., Chico. School of Education.
SPONS AGENCY	Forest Service (DOA), Washington, D.C.
PUB DATE	[74]
NOTE	36p.
EDRS PRICE	MF-$0.75 HC-$1.85 PLUS POSTAGE
DESCRIPTORS	College Curriculum; College Teachers; *Community Colleges; Data Collection; Feasibility Studies; *Fire Protection; *Instructional Programs; *Junior Colleges; Post Secondary Education; Questionnaires; School Surveys; *Teacher Attitudes; Technical Education; Technical Reports; Vocational Education
IDENTIFIERS	*California

ABSTRACT

The possibility of using the vocational/technical instructors of the California Community Colleges as a fire-prevention-education resource was explored. A questionnaire was sent to 99 California community colleges, of which 71 replied. The questionnaire addressed the following questions: (1) Is the topic of equipment or machine-caused fires included in your curriculum? (2) Could the California Division of Forestry be of assistance in supplying teaching materials for equipment caused fires? (3) What would suitable content and format be for such materials in your instructional program? (4) Would you be interested in a cooperative research program with the California Division of Forestry in equipment fire prevention? (5) Would your trade area lay Advisory Board Chairman be interested in a cooperative equipment fire prevention program for his committee? Results of the survey, on a question-by-question basis, showed: (1) 60 percent replied "No" and 40 percent said "Yes"; (2) 95 percent of those not teaching equipment fire prevention indicated a desire to receive teaching materials; (3) the most popular formats for materials were 16-mm films, printed material for instructors, handouts for students, and free, qualified speakers; (4) 132 instructors were interested in a cooperative program; and (5) 46 of 203 instructors responded positively. (Nine tables provide the survey data, and a copy of the questionnaire is given. In addition, the California Wildfire Summary for 1973 is presented.) (DB)

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A FEASIBILITY STUDY OF CALIFORNIA COMMUNITY COLLEGES AS AGENTS FOR EQUIPMENT FIRE PREVENTION EDUCATION 1973-1974

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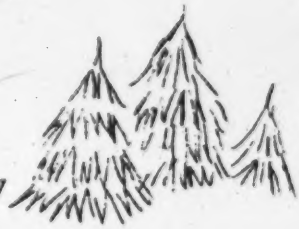

This survey research project has been conducted under the joint sponsorship of the U. S. Forest Service, the California Division of Forestry and California State University, Chico, California 95926.

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INTRODUCTION:

In recent years there has been an increase in equipment caused fires reported by both the U. S. Forest Service and the California Division of Forestry. The Forest Service reported an increase in equipment use fires in the National Forest of California from 76 to 131 during 1972 and 1973. Equipment use fires represented the largest single acreage loss during 1973. The California Division of Forestry also presented an equally large equipment use fire increase from 938 in 1972 to 1167 in 1973.

Facing the probability of a continued increase in the number of equipment caused fires, the U. S. Forest Service and the California Division of Forestry elected to explore the possibility of using the vocational-technical instructors of the California Community Colleges as representing a possible fire prevention education resource. The rationale being that community college instructors are in a position to reach students who are well motivated and are presently using equipment and machinery involved in machine caused fires. Examples of such equipment are welding units, agricultural machinery, aircraft, automobiles and building construction tools.

Further, each community college usually generates community participation in the areas of technical and vocational programs in the form of lay advisory committees for the trades areas. It was considered that such community representatives may present an opportunity for additional support for the cause of equipment use fire prevention education.

THE STUDY DESIGN AND RESULTS:

In order to establish contact with the community colleges, a questionnaire was designed to be sent to selected career education teachers. Initial conversations with three community college deans of vocational-technical education and with Mr. Ted Syplot, Dean of Occupational Education, the Chancellor's Office of the California Community Colleges, it was suggested that the best approach to reach the technical-vocational instructors for cooperation in the fire prevention survey would be to first request the assistance of the Dean of Vocational-Technical Education in the distribution of the questionnaires. Each community college Dean of Occupational Programs was asked to select five faculty members who, in the Dean's best judgment, would be interested enough to respond to the questionnaire. This was justified on the basis of past experience whereby the instructor who participated voluntarily would be most apt to contribute constructively on the topic of the feasibility of the community college becoming a part of the fire prevention program.

The actual design of the questionnaire was done in cooperation with Mr. Cy Homes, California Division of Forestry, Personnel of the Oroville, California Ranger Station, and Mr. Earl McGhee, Dean of Career Education Programs, Butte Community College. The questionnaire addressed the following questions:

1. Is the topic of equipment or machine caused fires included in your curriculum?

2. Could the California Division of Forestry be of assistance in supplying teaching materials for equipment caused fires?
3. What would suitable content and format be for such materials in your instructional program?
4. Would you be interested in a cooperative research program with the California Division of Forestry in equipment fire prevention?
5. And lastly, would your trade area lay Advisory Board Chairman be interested in a cooperative equipment fire prevention program for his committee?

The equipment caused fire prevention survey questionnaire was sent to all 99 California community colleges regardless of the size of scope of the vocational program. In the vocational-technical arts area some urban and suburban colleges have very large programs. The smaller colleges were included because of rapidly changing program emphases within individual community colleges today. This simply means that more importance is being placed on industrial and technical programs by the community than has been the case in recent years.

Of the 99 California community colleges who were sent questionnaires, 71 replied. This represents a 73% return. In view of the fact that no follow-up communications were sent after the primary mailing this result could be considered evidence of a high degree of interest on the part of the community college instructors. From the replying institutions,

203 survey questionnaires were received. This represents an average of 2.85 replies per institution. The original request to each institution's Dean of Occupational Programs was for a maximum of five questionnaire respondents per institution regardless of the size fo the faculty or the program.

To the question, "Are you presently using teaching materials related to fires caused by machine or equipment usage?, 60% said, No. Of the remaining 77 instructors (40%) who said Yes, 57% made their own fire prevention materials, 34% received materials from private industry, and 24 teachers or 31% used materials provided by the California Division of Forestry. The second part of the question related to the possibility of receiving a catalogue of free and inexpensive equipment caused fire prevention teaching materials. Of the people who answered, "No, I am not presently teaching equipment fire prevention", on the first part of the question, 95% indicated a desire to receive such a catalogue which can be interpreted as a positive indication of interest in fire prevention cooperation.

In addition to a desire to have a catalogue of materials on the topic of machine caused fire prevention, the survey returns indicated the four most popular formats for material to be 16mm films, printed material for instructors, handouts for students and qualified free speakers. (However, this preference which was expressed on the written returned questionnaires was modified during the on-site interviews held with instructors. They expressed a need for more down-to-earth materials during the campus visits, i.e., handouts for students,

single concept colorful posters written at high school reading levels and faculty materials prepared so that they may be easily presented with a minimum of study. A few instructors indicated that they had asked for media formats for materials because they are professionally acceptable and expensive to prepare in their own settings although they were somewhat less desireable for immediate teaching needs.)

Of the eight caused factors listed on the questionnaire which relate to equipment caused fires, the interests expressed by the respondents were for information relative to fuels, 72%, maintenance and housekeeping, 58%, and self-help in inspection, 52%. The remaining topics which were rated considerably lower were exhaust problems, spark arresters, equipment and engine design, and weather conditions which received the lowest interest response.

Question no. four asked the community college instructors if they would be interested in a cooperative program in fire prevention education with the California Division of Forestry. One hundred thirty-two instructors said yes to this question. This represents a large potential resource of interested faculty to participate in equipment caused fire prevention education. Some of the comments made by the respondents may be helpful for the design of instructional materials. Instructors Requests for specific applications to the teaching situation, requests for ways of incorporating student participation and definite time constraints for such participation. Well over one half or 116 teachers said they would be interested in participating in field-orientated fire prevention research with the California Division of Forestry.

Only 46 of 203 instructors responded positively to a request for an opinion as to whether their Community Lay Advisory Committee Chairman would be interested in cooperating with the instructor and the California Division of Forestry in a Fire prevention education program. This question could have been misinterpreted as asking for a commitment instead of an opinion. After the questionnaires were returned it became apparent that the question was a poor one or at least poorly written.

LIST OF REPLYING CALIFORNIA COMMUNITY COLLEGES

TABLE I

COLLEGE	CITY	FIRE DISTRICT
American River College	Sacramento	III
Antelope Valley College	Lancaster	VI
Bakersfield College	Bakersfield	IV
Barstow College	Barstow	VI
Butte College	Durham	II
Cabrillo College	Aptos	V
Canada	Redwood city	V
Cerritos College	Norwalk	VI
Cerro Coso Community College	Ridgecrest	IV
Chabot Junior College	Hayward	V
Chaffey Junior College	Alta Loma	VI
College of the Canyons	Valencia	VI
Columbia Junior College	Columbia	III
Compton Junior College	Compton	VI
Contra Costa College	San Pablo	V
Cosumnes River College	Sacramento	III
Crafton Hills College	Yucaipa	VI
Cuesta Junior College	San Luis Obispo	V
De Anza Junior College	Cupertino	V
College of the Desert	Palm Desert	VI
Diablo Balley College	Pleasant Hill	V
East Los Angeles College	Los Angeles	VI
El Camino Junior College	Via Torrance	VI
Feather River College	Quincy	II

COLLEGE	CITY	FIRE DISTRICT
Foothill College	Los Altos Hills	V
Fresno City College	Fresno	IV
Fullerton Junior College	Fullerton	VI
Glendale College	Glendale	VI
Golden West Junior College	Huntington Beach	VI
Hartnell Junior College	Salinas	V
Indian Valley College	Novato	I
Lassen Community College	Susanville	II
Los Angeles Harbor College	Wilmington	VI
Los Angeles Southwest College	Los Angeles	VI
Los Angeles Pierce College	Woodland Hills	VI
Los Angeles Valley College	Van Nuys	VI
Los Medanos Junior College	Pleasant Hill	V
Mendocino Community College	Ukiah	I
Merced Community College	Merced	IV
MiraCosta Community College	Oceanside	VI
Modesto Junior College	Modesto	III, V
Monterey Peninsula College	Monterey	V
Moorpark College	Moorpark	VI
Mt. San Antonio College	Walnut	VI
Mt. San Jacinto	San Jacinto	VI
Napa Junior College	Napa	I
Ohlone Community College	Fremont	V
Orange Coast Community College	Costa Mesa	VI
Pasadena City College	Pasadina	VI
College of the Redwoods	Eureka	I

COLLEGE	CITY	FIRE DISTRICT
Reedley College	Reedley	IV
Riverside City College	Riverside	VI
San Bernadino Valley College	San Bernadino	VI
San Diego City College	San Diego	VI
San Diego Mesa Junior College	San Diego	VI
San Diego Miramar College	San Diego	VI
San Juaquin Delta Junior College	Stockton	III
San Jose City College	San Jose	V
San Mateo Community College	San Mateo	V
Santa Ana Community College	Santa Ana	VI
Santa Barbara City College	Santa Barbara	V
Santa Monica Community College	Santa Monica	VI
Santa Rosa Community College	Santa Rosa	I
College of the Sequoias	Visalia	IV
Shasta Junior College	Redding	II
Sierra Community College	Rocklin	III
Solano Community College	Suisun City	I
Southwestern Junior College	Chula Vista	VI
Taft Junior College	Taft	IV
Victor Valley Community College	Victorville	VI
Ventura College	Ventura	VI
Yuba Junior College	Marysville	III

However, the lack of enthusiasm on the part of the instructors in writing on their questionnaires was not fully reflected in comments which were received from community college instructors interviewed on their campuses. In general, the instructors were of the opinion that the lay advisory board members for the vocational-technical areas were helpful in the giving of individual assistance for job placement, but would be of little assistance in building a fire prevention education program for equipment caused fires at this time. However, once a basic curriculum had been established it was thought that the businessmen could assist in the evaluation of the materials as they related to on-site applications.

As a vertification technique for this study, visits to representative college campuses were included as a budget item. The reason for this was that in the opinion of the investigator the questionnaire technique alone should not be fully trusted in a matter of this importance, i.e., would the community colleges make reliable equipment fire prevention assistants to the U.S. Forest Service and the California Division of Forestry. The magnitude of the question demanded an augmentation to the pencil and paper assessment.

A total of 17 community colleges were visited on behalf of this equipment fire prevention education program survey. The colleges visited are listed below:

Bakersfield College
Butte Community College
Canyons, College of
Chabot College
Columbia Junior College
Los Angeles Harbor College
Cosumnes River College
Fresno College
Golden West College
Long Beach City College
Merced College
Modesto Junior College
Orange Coast College
Redwoods, College of
San Mateo College
Shasta College
Yuba College

The findings from the visitations were fairly uniform. The procedure for an on-site visit was as follows, the investigator would first stop at the Office of the Dean for the Vocational and Technical Programs. During this time appreciation was expressed on behalf of the California Division of Forestry and the U. S. Forest Service for their participation in the written survey. It was not always possible to talk directly with the Dean. However, the appropriate message was left with the secretary accompanied by a business card. A question which was asked during the on-site visits was, "Do your graduates of the trade and vocational programs leave the community or do they remain here for their working careers?" Every college official interviewed game the same response which (when summarized is) as follows:

The students in the technical-vocational programs are very job orientated. During their training they develop close ties with the instructional program and the community. The job placement process reinforced the student's initial involvement. The first full time position tend to be obtained by the instructor for the student working with a community business person and the college placement office. There is, of course, a small percentage of students who do leave their community employment and go elsewhere, but it is small. This was reported to be approximately 15% or less. This estimate does not include the transient student who takes a vocational course for his or her own general education.

This stability of student placement in the career areas within a community would seem to be an important quality for consideration in a fire prevention program. It provides an opportunity to present materials with regional appeal and would provide a return on the educational investment of equipment fire prevention efforts on the part of both the community college teaching staff as well as personnel from the U.S. Forest Service and the California Division of Forestry.

The relationship to the community was continually stressed by college personnel. However, in reality, the form of that community involvement is considerably different than that first assumed to be present by this investigation. In publications and public announcements, community college leaders have stressed the value and cooperation of the lay advisory boards to the career education areas. The strength most often talked about publicly regarding strong advisory boards as groups for given trade areas simply does not exist. There is nothing wrong with the advisory board structure being as it is. It simply means that this is a poor way to approach equipment fire prevention education and should be deferred at this time.

The information supplied by the community college instructors on the written questionnaire plus the facts acquired from the on-site visits to the several college campuses enable the presentation of the following. (Some of this data may be of importance in further consideration of the use of the community college vocational-technical instructional lay advisory groups in the equipment caused fire prevention program development.)

1. The vocational-technical departments of California Community Colleges do have important community contracts.
2. The strength of the community relationship is best in the area of student placement.
3. This placement relationship is most often a one-to-one function between the businessman and the community college instructor.

Table II gives the occupational area of the instructors who returned the questionnaires sent to the 99 California Community Colleges. As noted above, the Dean of Vocational-Technical Education of the Community Colleges determined who was to receive the questionnaires.

Table III gives the instructional area of instructors requesting weather information as it related to fire danger. It will be noted that there is a low correlation between the areas using fire causing equipment and the weather data request.

INSTRUCTIONAL SPECIALIZATION OF REPLYING INSTRUCTORS

TABLE II

Vocational Technology	47
Auto Mechanics	43
Agriculture and Natural Resources	28
Welding	14
Fire Science	14
Forestry	11
Machine shop	9
Electronics	7
Drafting and Construction	6
Unknown	5
Aeronautics	5
Physical Science	3
Public Safety, Urban Studies	3
Printing	2
Chemistry	1
College President	1
Motorcycle	1
Plastics	1
Criminology	1
Paramedic	1

INSTRUCTORS REQUESTING WEATHER INFORMATION

TABLE III

SCHOOL	DEPARTMENT
American River	Environmental Science
Chaffey	Forestry
Chaffey	Fire Science
Columbia	Fire Science
Compton	Industry and Technology
Contra Costa	Auto
Cuesta	Biological Science
Desert	Agriculture
East Los Angeles	Auto
Feather River	Forestry
Feather River	Forestry
Hartnell	Auto
Hartnell	Skill Center
Indian Valley	President
Los Angeles Valley	unknown
Moorpark	Urban Studies
Mount San Antonio	Agriculture
Mount San Jacinto	Forestry
Mount San Jacinto	Forestry
Redwoods	Forestry
Reedley	Welding
San Diego City	Auto
San Diego Mesa	N.L.T.
San Juaquin Delta	Agriculture
San Juaquin Delta	Agriculture
San Mateo	Horticulture
Santa Monica	Fire Science
Santa Rosa	Forestry
Shasta	Agriculture
Shasta	Technology and Industry
Taft	Applied Arts
Yuba	Electronics

CONCLUSIONS AND RECOMMENDATIONS:

The original hypothesis of this study was that there existed an opportunity to build an educational program within the California Community Colleges to reduce equipment caused fires. Several factors led to this idea. Of these, the following seemed to offer the largest propensity for success when thought of in terms of the CHARACTERISTICS OF COMMUNITY COLLEGES HELPFUL TO AN EQUIPMENT CAUSED FIRE PREVENTION EDUCATION PROGRAM:

1. A permanent institutional setting in which to build cooperative relationships.
2. A body of vocational-technical instructors and their students who use equipment commonly involved in wildland fires.
3. The unique relationship the community college has to the business community where equipment is sold, serviced and commonly used in the vocational-technical programs.
4. The general willingness of community college vocational-technical teachers to use and evaluate fire prevention education materials aimed at the reduction of equipment caused fires.
5. Eighty-five percent of the students of vocational-technical programs of community colleges remain in the area after they complete their programs.

The results of the questionnaire distribution and the on-site visits to the several California Community College campuses

in both north and south state locations, presented a strong opportunity to involve the community colleges in an equipment caused fire prevention education program.

Although this represents an obvious opportunity for assistance in a much needed program, involvement with the community colleges will not be without problems. Some of them are as follows:

1. The community college technical-vocational instructor thinks very narrowly and provincially about his program. Fire prevention is thought of in terms of fires within the building where he teaches. Work station fires are his largest fear. On the job fires are less thought about and wildland fires are, for most of the instructors contacted, very remote in their thinking.

The solution would seem to be to meet the instructors immediate desire for simple, direct, hard-hitting classroom teaching materials on equipment fire prevention. The materials should have no more than a high school reading level and be directed at single concepts as nearly as possible.

Very simply, what needs to be done is to supply the teachers with what they want and need and build their confidence in the quality of the materials they receive. This survey has shown the potential for involvement. It is not possible to say that it will be successful. There is only the opportunity for success.

Consideration should be given to the on-going evaluation of the teaching materials from the beginning. In order to do this it is suggested that a study group be formed to include a U. S. Forest Service representative, California Division of Forestry personnel, community college vocational-technical instructor from northern and southern locations and a principal investigator to have responsibility for the over-all research and development aspects of the program. However, because of the difficulties which the geographical spread of the representatives presents, it is recommended that the main group be a working advisory board. The actual research and development work should be done by a corps of community college teachers, the principal investigator, and visiting consultant experts near the site of the principal investigator's home base of operations.

It is further recommended that this be a two year operation. One year taken for the assembling and development of the materials and the next for the on-site testing and evaluation of the materials in the community college settings. As was mentioned before, community college teachers seemed very sensitive to the needs of their geographical region. This was particularly true regarding teaching materials. The question repeatedly asked during the on-site visits was the applicability of the new equipment fire prevention materials that may be developed to their specific geographical location: desert, dense wooded areas, urban or agricultural lands. The offering of equipment fire prevention material alone was not attractive

enough without geographical and instructional relevance to the subject matter being taught. These needs may indeed complicate the matter somewhat. However, it would seem that the most simple way to take care of breakdown would be to plan to develop specific materials for specific subjects first and then add as a part of the material the geographical and weather condition data to each set of materials.

Two consultants were employed for this project at $250 each to conduct a preliminary search of available materials from the world of business that may relate to equipment caused fires. The two consultants have filed their preliminary reports with this investigator. At the moment, these reports represent beginning explorations via correspondence into the world of agricultural-business and business-technology as to the availability of commercial teaching materials for equipment caused fire prevention. The two consultants desire to continue work on the project should there be a continuation of the development and testing of instructional materials for community college use. The two consultants are: Professor Robert Donoho, Division of Industry and Technology, California State University, Chico, California and Mr. Doug Flesher, Instructor, Agricultural Programs, Butte Community College, Durham, California.

TABLE IV

RESULTS OF EQUIPMENT-CAUSED FIRE PREVENTION SURVEY

Question 1

Numbers Represent Responses

1. Are you presently using teaching materials related to fires caused by machine or equipment usage?

40%		60%	
82	Yes	121	No

If Yes, from what source do you obtain your material? (please check)

61%	50	Make your own
39%	32	Private Industry
24%	20	Publishers (purchased)
15%	12	City Fire Departments
12%	10	California Division of Forestry
12%	10	U. S. Forest Service
13%	11	U. S. Government Offices
6%	5	California State Offices
10%	8	Other: weather bureau, County F.D., Safety test, FAA.

N = 203

If No, would you be interested in receiving a catalog of free and inexpensive teaching materials from the California Division of Forestry?

89% said "yes", of the people who said "NO".

N = 203 178 Yes 6 No 19 Blank (they answered "yes")

TABLE V

RESULTS OF EQUIPMENT FIRE PREVENTION SURVEY

Question 2

Numbers Represent Responses

2. Regarding teaching material for machine-caused fire prevention instruction, what forms of material would be most useful? (please check)

69%	141	16mm films
33%	67	slide presentations
39%	80	slide/tape presentations
17%	35	3-D plastic models of dangerous conditions
38%	78	posters
54%	110	printed materials for instructors
49%	99	handouts for students
40%	81	qualified free speakers

TABLE VI

RESULTS OF EQUIPMENT FIRE PREVENTION SURVEY

Question 3

Numbers Represent Responses

3. The basic topics surrounding equipment-caused fires are listed below. Would you please select those which are most important to you. (please check)

72%	146	fuels
33%	66	exhaust problems (chaff accumulation for example)
34%	69	spark arrestors
31%	63	equipment and engine design (friction between moving parts)
60%	121	maintenance and housekeeping
16%	32	weather conditions
50%	102	self-help in inspection of equipment and materials for fire danger

N = 203

TABLE VII

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RESULTS OF EQUIPMENT FIRE PREVENTION SURVEY

Question 4

Number Represent Responses

4. Would you be interested in a cooperative program with the nearest California Division of Forestry Ranger Unit regarding fire prevention?

8 Blank 34 Yes 17 No

Comment: 109 Yes 35 No

1. We already do
2. If it applies to me
3. Would like help
4. Would like student participation
5. Have limited time

1. There is little danger in class
2. No time
3. Does not apply to my field

70% 143 Yes

25% 52 No

4% 8 Blank

TABLE VIII

RESULTS OF EQUIPMENT FIRE PREVENTION SURVEY

Question 5

Numbers Represent Responses

5. Field-oriented fire prevention research is of vital interest to the California Division of Forestry. Would you be willing to work with the nearest CDF Ranger Unit on the development of research needs as ideas develop at your college or at the Division of Forestry?

98 Yes 48 No 22 Blank

Comment: 22 Yes 13 No

1. But limited time	1. Not applicable to my field
2. Depending on the program	2. No time

59% 120 Yes

30% 61 No

11% 22 Blank

N = 203

TABLE IX

RESULTS OF EQUIPMENT FIRE PREVENTION SURVEY

Question 6

Numbers Represent Responses

6. Would you community Advisory Committee Chairman be interested in cooperating with you and the California Division of Forestry in the service and research development program?

46 Blank 50 Yes 21 No

31% 62 Yes

14% 29 No

55% 112 Blank

Comment: 66 Blank 12 Yes 8 No

? 56 probably None

None 8 is none N/A

N/A 2 already are ?

Your name_____

Department_____

College_____

Advisory Committee Chairman's Name:

_____

Address:_____

_____

Final Tabulation as of June 21, 1974.

N = 203 questionnaires returned plus three college's responses which arrived after June 21, 1974.

71 community colleges out of 99 returned questionnaires.

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Professor of Education (916) 895-6165
Home (916) 343-6814

March 28, 1974

(Letter of request sent to Deans of Vocational/Technical Divisions within the 99 California Community Colleges)

The California Division of Forestry earnestly requests your cooperation in a fire prevention survey designed to benefit both the community colleges and fire prevention.

Machine-caused fires are on the increase in California. The Division of Forestry would like to assist you with needed instructional resources and a research program to alleviate the problem. However, we have to have a measure of the need first. The enclosed questionnaire will help with the task. Instructors who deal with equipment are the best prospects for assistance, including welding and auto shop staff.

Would you please select five occupational instructors in the day program who would be willing to complete the questionnaire and return it to you. When you have the best return possible, I would appreciate your sending them to me in the enclosed envelope. You will be sent a copy of the results for follow-up conversations with your nearest California Division of Forestry Ranger Unit. This unit will become your contact agency for teaching materials and resources.

Very truly yours,

Frank H. Gladen, Ed.D.
Professor of Education and
Principal Investigator,
California Division of Forestry

Enclosure

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March 28, 1974

(Copy of a letter sent to the Presidents of all 99 California Community Colleges)

Because of the dramatic increase in equipment-caused fires in California, the California Division of Forestry is requesting the cooperation of the Deans of Occupational Education in a fire prevention survey. Hopefully, the results of this survey will mean a richer relationship between your college and the California Division of Forestry.

For your information, I have enclosed a file copy of the survey sent to your Dean of Occupational Education. Should you have any questions about this questionnaire or the Division of Forestry's intentions, please feel free to write.

Very truly yours,

Frank H. Gladen, Ed.D.
Professor of Education and
Principal Investigator,
California Division of Forestry

Enclosure

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EQUIPMENT-CAUSED FIRE PREVENTION SURVEY

The California Division of Forestry requests **your** cooperation as an Occupational Education instructor in the development of a community college equipment-caused fire prevention survey.

The Division of Forestry wants to supply you with teaching materials and resources needed to alleviate the equipment fire problem. Machine-caused fires are increasing. The reasons are many--maintenance problems, fuels, and poor design are among them.

However, the Division does not know what your needs are. As a community college instructor, you are in a unique position to assist in this needed fire prevention survey. The assistance you give may result in a better cooperation relationship between your college and the Division of Forestry.

Please return your completed questionnaire to your Dean of Occupational Education Office. He will then return it to me.

1. Are you presently using teaching materials related to fire caused by machine or equipment usage?

_____Yes _____No If Yes, from what sources do you obtain your materials? (please check)

_____Make your own
_____Private Industry
_____Publishers (purchased)
_____City Fire Departments
_____California Division of Forestry
_____U.S. Forest Service
_____U.S. Government Offices
_____California State Offices
_____Other: _____

If No, would you be interested in receiving a catalog of free and inexpensive teaching materials from the California Division of Forestry?

_____Yes _____No

2. Regarding teaching materials for machine-caused fire prevention instruction, what forms of materials would be most useful? (please check)

_____16mm films
_____slide presentations
_____slide/tape presentations
_____3-D plastic models of dangerous conditions
_____posters
_____printed materials for instructors
_____handouts for students
_____qualified free speakers

3. The basic topics surrounding equipment-caused fires are listed below. Would you please select those which are most important to you. (please check)

_____fuels
_____exhaust problems (chaff accumulation for example)
_____spark arrestors
_____equipment and engine design (friction between moving parts)
_____maintenance and housekeeping
_____weather conditions
_____self-help in inspection of equipment and materials for fire danger

4. Would you be interested in a cooperative program with the nearest California Division of Forestry Ranger Unit regarding fire prevention?

_____Yes _____No Comment:

5. Field-oriented fire prevention research is of vital interest to the California Division of Forestry. Would you be willing to work with the nearest CDF Ranger Unit on the development of research needs as ideas develop at your college or at the Division of Forestry?

_____Yes _____No Comment:

6. Would your community Advisory Committee Chairman be interested in cooperating with you and the California Division of Forestry in the service and research development program?

_____Yes _____No Comment:

Your name_____Advisory Committee Chairman's name:

Department_____ _____

College_____ Address_____

_____ _____

State of California
The Resources Agency
Department of Conservation
DIVISION OF FORESTRY

CALIFORNIA WILDFIRE SUMMARY - 1973

(State and Federal Wildland Protection Areas)

CALIFORNIA DIVISION OF FORESTRY	WILDFIRES	ACRES BURNED
Total This Year	6,701	133,109
Total Last Year	6,032	63,910
Five Year Average	5,744	105,622
U.S. FOREST SERVICE		
Total This Year	2,865	69,168
Total Last Year	2,976	39,225
Five Year Average	2,309	96,119
BUREAU OF LAND MANAGEMENT		
Total This Year	105	19,829
Total Last Year	119	5,700
Five Year Average	73	1,331
NATIONAL PARK SERVICE		
Total This Year	192	5,311
Total Last Year	251	2,525
Five Year Average	187	2,250
CONTRACT COUNTIES*		
Total This Year	1,762	34,953
Total Last Year	1,260	2,718
Five Year Average	1,692	57,623
STATE WIDE TOTALS		
Total This Year	-11,625	262,370
Total Last Year	-10,638	114,078
Five Year Average	-10,005	262,945

*Kern, Los Angeles, Marin, Santa Barbara, Ventura

(Five year average for 1968 through 1972

Based on data available as of 2/7/74

F.C. Office
2/14/74

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CALIFORNIA DIVISION OF FORESTRY
State Responsibility Wildfires and Acres Burned by Cause
(CDF Direct Protection Area)

CAUSE	WILDFIRES			ACRES BURNED		
	1973	1972	5 Yr. Av. 1967-1971(1)	1973	1972	5 Yr. Av. 1967-1971(1)
Playing With Fire	776	847	867	10,755	3,185	2,900
Incendiary	1,152	1,050	898	29,023	31,092	26,200
Equipment Use	1,167	938	775	16,976	9,945	18,900
Smoking	527	534	613	21,232	3,242	15,000
Debris Burning	523	548	448	4,060	2,814	8,900
Railroad	219	215	292	402	567	900
Electric Power	218	177	159	4,605	1,663	4,600
Camp Fire	244	238	226	750	4,711	1,300
Miscellaneous	746	665	1,013	35,917	1,017	28,300
Undetermined	615	350	371	6,102	4,151	5,000
SUB TOTAL MAN CAUSED	6,187	5,562	5,662	129,822	62,387	112,000
Lightning	514	470	301	3,287	1,523	3,300
TOTAL	6,701	6,032	5,963	133,109	63,910	115,300

(1) Calculated, based on revised cause categories adopted in 1971. Based on data available 2/15/

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UNIVERSITY OF CALIF.
LOS ANGELES

NOV 22 1974

CLEARINGHOUSE FOR
JUNIOR COLLEGE
INFORMATION

U.S. FOREST SERVICE
National Forests of California

Number of Fires and Acres Burned by Cause
1973

CAUSE	Incidence 1972	Incidence 1973	Incidence 4-Yr Av (70-73)	Incidence 5-Yr Av* (69-73)	Acres Burned 1972	Acres Burned 1973	Acres Burned 4-Yr Av (70-73)	Acres Burned 5-Yr Av* (69-73)
MAN CAUSED								
EQUIPMENT USE	76	131	96		149	27,962	9,123	
SMOKING	245	296	282		968	599	8,227	
CAMPFIRE	218	239	247		5,611	370	15,966	
DEBRIS BURNING	56	70	65		267	1,214	616	
RAILROAD	35	70	64		35	153	1,490	
INCENDIARY	151	184	162		4,933	20,170	12,356	
CHILDREN	156	154	162		19,231	31	5,184	
MISCELLANEOUS	180	192	190		4,238	15,262	46,995	
MAN-CAUSED TOTAL	1,117	1,336	1,268	1,222	35,432	65,761	99,957	83,311
LIGHTNING TOTAL	1,859	1,524	1,262	1,252	4,167	1,789	1,788	1,997
GRAND TOTAL	2,976	2,860	2,530	2,474	39,599	67,550	101,745	85,308

*5-year average, except for the totals shown above, are not available due to changes in cause categories